AMENDMENTS TO THE CLAIMS

In response to Office Action, please amend the above-identified patent application as follows:

In the Claims

Claims 9-11, 19-21, and 42-44 have been cancelled without prejudice and claims 8, 12, 17, 22, 41, and 45 have been amended as follows:

1. (original) A direct-path-signal detector circuitry, comprising:

a standard deviation calculator circuitry configured to determine a standard deviation of a plurality of data values within a data frame that corresponds to a radio-frequency signal received via a communication link; and

a threshold circuitry configured to detect a direct-path signal depending on the relative values of the standard deviation and a threshold signal.

2. (original) The circuitry of claim 1, in which the received radio-frequency signal is received via a multipath propagation medium.

3. (original) The circuitry of claim 2, in which the threshold circuitry further comprises a comparator circuitry configured to compare the determined standard deviation with the threshold signal to detect the direct-path signal.

4. (original) The circuitry of claim 3, in which the plurality of data values reside in a window within the data frame.

5. (original) The circuitry of claim 4, in which the received signal comprises an ultra-wideband signal.

6. (original) The circuitry of claim 5, in which the threshold signal comprises an overall standard deviation of a noise floor of the communication link, multiplied by a scaling factor.

7. (original) The circuitry of claim 6, in which the window constitutes a sliding window.

8. (currently amended) A radio-frequency (RF) apparatus, comprising:

a radio-frequency receiver circuitry configured to receive via a communication link a plurality of pulses that result from a transmission of a radio-frequency pulse in a multipath propagation medium; and

a detector circuitry coupled to the radio-frequency receiver circuitry, the detector circuitry configured to detect a direct-path pulse in the plurality of pulses,

wherein the detector circuitry detects the direct-path signal within a data frame that corresponds to the plurality of pulses, wherein the detector circuitry is further configured to detect the direct-path signal by using a standard deviation of a plurality of data values in a window within the data frame, and the detector circuitry is further configured to detect the direct-path signal depending on the relative values of the standard deviation and a threshold signal.

9. (cancelled)

10. (cancelled)

11. (cancelled)

12. (currently amended) The apparatus of claim ~~11~~ 8, in which the radio-frequency pulse transmitted in the multipath propagation medium comprises an ultra-wideband signal.

13. (original) The apparatus of claim 12, in which the threshold signal comprises an overall standard deviation of a noise floor of the communication link, multiplied by a scaling factor.

14. (original) The apparatus of claim 13, in which the window comprises one of a plurality of sliding windows within the data frame.

15. (original) The apparatus of claim 14, in which the detector circuitry is further configured to successively compare a standard deviation of data values within each of the plurality of sliding windows with the threshold signal.

16. (original) The apparatus of claim 15, wherein the overall noise standard deviation comprises an average of a plurality of successively obtained standard deviations of a noise floor of the communication link.

17. (currently amended) A communication system, comprising:

a transmitter circuitry configured to transmit a radio-frequency pulse into a multipath propagation medium;

a receiver circuitry configured to receive a plurality of pulses that result from the transmission of the radio-frequency pulse into the multipath propagation medium; and

a detector circuitry configured to detect a direct-path pulse in the received plurality of pulses, wherein the detector circuitry detects the direct-path signal within a data frame that corresponds to the plurality of pulses, wherein the detector circuitry is further configured to detect the direct-path signal by using a standard deviation of a plurality of data values in a window within the data frame, and wherein the detector circuitry is further configured to detect the direct-path signal depending on the relative values of the standard deviation and a threshold signal.

18. (original) The system of claim 17, in which the receiver circuitry receives the plurality of pulses via a communication link.

19. (cancelled)

20. (cancelled)

21. (cancelled)

22. (currently amended) The system of claim ~~21~~17, in which the radio-frequency pulse transmitted in the multipath propagation medium comprises an ultra-wideband signal.

23. (original) The system of claim 22, in which the threshold signal comprises an overall standard deviation of a noise floor of the communication link, multiplied by a scaling factor.

24. (original) The system of claim 23, in which the window comprises one of a plurality of sliding windows within the data frame.

25. (original) The system of claim 24, in which the detector circuitry is further configured to successively compare a standard deviation of data values within each of the plurality of sliding windows with the threshold signal.

26. (original) The system of claim 25, wherein the overall noise standard deviation comprises an average of a plurality of successively obtained standard deviations of a noise floor of the communication link.

27. (original) The system of claim 26, in which the receiver circuitry comprises a scanning receiver circuitry.

28. (original) The system of claim 27, in which the transmitter circuitry, the receiver circuitry, and the detector circuitry reside within a radar circuitry.

29. (original) The system of claim 28, in which the detector circuitry resides within a processor circuitry coupled to the receiver circuitry.

30. (original) The system of claim 28, in which the detector circuitry resides within the receiver circuitry.

31. (original) The system of claim 27, in which the receiver circuitry and the detector circuitry reside within a first transceiver circuitry.

32. (original) The system of claim 31, in which the transmitter circuitry resides within a second transceiver circuitry.

33. (original) The system of claim 32, in which the detector circuitry resides within a processor circuitry coupled to the receiver circuitry.

34. (original) A method of detecting a direct-path-signal, comprising:

determining a standard deviation of a plurality of data values within a data frame that corresponds to a radio-frequency signal received via a communication link; and

detecting a direct-path signal depending on the relative values of the standard deviation and a threshold signal.

35. (original) The method of claim 34, in which the received radio-frequency signal is received via a multipath propagation medium.

36. (original) The method of claim 35, which further includes comparing the determined standard deviation with the threshold signal to detect the direct-path signal.

37. (original) The method of claim 36, in which the plurality of data values reside in a window within the data frame.

38. (original) The method of claim 37, in which the received signal comprises an ultra-wideband signal.

39. (original) The method of claim 38, further comprising:

determining an overall standard deviation of a noise floor of the communication link; and

multiplying the overall standard deviation of the noise floor by a scaling factor to obtain the threshold signal.

40. (original) The method of claim 39, wherein the window comprises a sliding window.

41. (currently amended) A method of detecting a direct-path pulse in a radio-frequency (RF) apparatus, comprising:

receiving via a communication link a plurality of pulses that result from a transmission of a radio-frequency pulse in a multipath propagation medium; ~~and~~

detecting a direct-path pulse in the plurality of pulses by using a detector circuitry in the radio frequency apparatus; and

detecting the direct-path pulse within a data frame that corresponds to the plurality of pulses depending on relative values of a standard deviation of a plurality of data values in a window within the data frame and a threshold signal.

42. (cancelled)

43. (cancelled)

44. (cancelled)

45. (currently amended) The method of claim [[44]] 41, wherein the radio-frequency pulse transmitted in the multipath propagation medium comprises an ultra-wideband signal.

46. (original) The method of claim 45, further comprising:

determining an overall standard deviation of a noise floor of the communication link; and

multiplying the overall standard deviation of the noise floor by a scaling factor to obtain the threshold signal.

47. (original) The method of claim 46, wherein the window comprises one of a plurality of sliding windows within the data frame.

48. (original) The method of claim 47, which further includes comparing successively a standard deviation of data values within each of the plurality of sliding windows with the threshold signal to detect the direct-path signal.

49. (original) The method of claim 48, which further includes averaging a plurality of successively obtained standard deviations of a noise floor of the communication link to obtain the overall noise standard deviation.